

REMARKS/ARGUMENTS

Claims 1-16 are currently pending in this application. Claims 1-16 have been rejected under 35 U.S.C. §102(e) as being anticipated by Cayla et al. (U.S. Patent Publication No. 2004/0004949, hereinafter "Cayla").

With respect to claim 1, claim 1 recites a radio network controller (RNC) configured to evaluate radio resources in a serving cell of a wireless transmit/receive unit (WTRU) to reduce the number of timeslots assigned to the WTRU and if it is not currently possible to reduce the number of timeslots, reassign resources in neighboring cells to reduce the amount of interference imparted on the serving cell by the neighboring cells and reassign resources in the serving cell to reduce the amount of interference in the serving cell.

The Examiner asserts that Cayla discloses an apparatus for optimizing the allocations of resources comprising an RNC that is configured to calculate the load or evaluate resources for each cell; determine whether a resource unit or timeslot can be reduced for the least loaded cell; and reassign resources by transferring a resource unit or timeslot to the highest loaded cell and that the present invention is anticipated by Cayla. The Applicants respectfully disagree.

Cayla is related to a method and apparatus for dynamic assignment of radio resources (i.e., timeslots) between cells. As indicated by the Examiner, in Cayla, the

RNC identifies the least loaded cell and the most loaded cell and transfers timeslots from the least loaded cell to the most loaded cell. In contrast, claim 1 of the present invention is directed to reduction of the number of timeslots assigned to the WTRU. The RNC in claim 1 is configured to determine whether it is possible to reduce the number of timeslots assigned to the WTRU and reduce the number of timeslots if it is possible and if it is not currently possible, reassign radio resources in the neighboring cells and the serving cell. While Cayla discloses a scheme for optimizing radio resources by reassigning timeslots between cells, Cayla fails to disclose a system for reducing fragmentation by reducing the number of timeslots assigned to the WTRU. Therefore, claim 1 is clearly distinguishable from Cayla.

In addition, in Cayla, the RNC identifies the least loaded cell and the most loaded cell by calculating a load of each cell based on the peak throughput and quality of service (QoS) factor. As indicated by Equation (1) in Cayla, the peak throughput of each mobile terminal in a cell is multiplied by a QoS factor and summed together and the sum is divided by the number of resource units allocated for the cell to calculate the cell load. Once the most loaded cell and the least loaded cell are identified, the radio resource is transferred from the least loaded cell to the most loaded cell to optimize radio resource allocation in the system. In contrast, in claim 1 of the present invention, the RNC first determines whether it is possible to reduce the number of timeslots assigned to the WTRU, and if it is not currently

possible to reduce the number of timeslots assigned to the WTRU, the RNC reassigns radio resources in the neighboring cells to reduce the amount of interference imparted on the serving cell by the neighboring cells or reassigns resources in the serving cell to reduce the amount of interference in the serving cell. Cayla fails to disclose the scheme of reassigning radio resources in the neighboring cells or the serving cell to reduce the interference in the serving cell when the number of timeslots assigned to the WTRU is not possible to reduce.

Since Cayla fails to disclose the scheme of reducing timeslots assigned to the WTRU either directly or after reassigning radio resources in the neighboring cells or in the serving cell, claim 1 and its dependent claims are not anticipated by Cayla.

Claim 4 includes similar limitations as in claim 1, and therefore it is believed that claim 4 and its dependent claims are not anticipated by Cayla for the same reason stated above.

With respect to claim 7, claim 7 recites the steps of determining whether the number of timeslots assigned to the WTRU may be reduced; if it is not possible to reduce the number of timeslots, reassigning resources in neighboring cells or reassigning resources in the serving cell and trying to reduce the number of timeslots assigned to the WTRU. As stated above with respect to claim 1, Cayla fails to disclose the scheme of reducing timeslots assigned to the WTRU to reduce fragmentation, if possible directly and if not possible after reassigning radio

resources in the neighboring cells or in the serving cell. Therefore, claim 7 and its dependent claims are not anticipated by Cayla.

With respect to claim 12, claim 12 includes similar elements as in claim 7. Therefore, it is believed that claim 12 and its dependent claims are not anticipated by Cayla for the same reason stated above with respect to claim 7.

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Conclusion

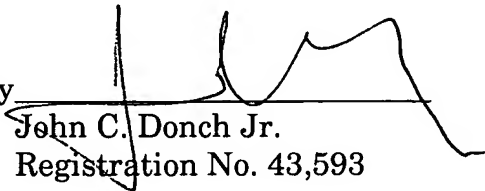
If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing remarks, Applicants respectfully submit that the present application is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

Tsai et al.

By


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